Filing Date: January 16, 2002

Title: SYSTEM AND METHOD FOR ACCOMPLISHING TWO-FACTOR USER AUTHENTICATION USING THE INTERNET

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IN THE CLAIMS

Please amend the claims as follows.

1. (Withdrawn) A method of implementing token-based electronic security across multiple secure web sites, in which the user has a security token, comprising:

storing unique token identification information, and the seed value of each token, in a security system;

requiring the user, upon login to a secure web site, to enter at least the code generated by the user's token;

passing the user's token code from the web site to the security system;

using the security system to verify whether or not the user's token code was generated by the user's token; and

passing the verification information from the security system to the web site, for use in web site security.

- 2. (Withdrawn) The method of claim 1 wherein the requiring step further requires the user to enter a user name and user password.
- 3. (Withdrawn) The method of claim 2 further comprising the step of: the web site verifying the user name and user password before passing the user's token code to the security system.
- 4. (Previously Amended) A method of accomplishing two-factor user authentication, comprising:

providing first and second user authentication methods, wherein the first and second user authentication methods are selected to authenticate at least two factors associated with the user;

enabling a user to communicate authentication data for both authentication methods to a first web site using the internet;

authenticating the user at the first web site using the first authentication method;

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enabling the communication of at least some of the authentication data from the first web site to a second web site using the internet;

authenticating the user at the second web site based on the authentication data transferred from the first web site using the second authentication method; and

wherein both web sites are involved in user authentication using the authentication data and wherein access to content on the first web site is restricted if the user is not authenticated to both web sites.

- (Previously Presented) The method of claim 4, wherein the first web site initially 5. authenticates the user based on the data relating to the first authentication method.
- (Canceled) 6.
- (Previously Presented) The method of claim 5, wherein the first web site communicates 7. with the second web site only if the user is initially authenticated.
- (Previously Presented) The method of claim 7, wherein the first web site communicates 8. to the second web site at least data relating to the second authentication method, and useridentification data.
- (Original) The method of claim 4, wherein one authentication method employs a 9. password.
- (Original) The method of claim 4, wherein one authentication method employs a token. 10.
- (Original) The method of claim 10, wherein the token is hardware-based, and generates a 11. code that comprises at least some of the data for the authentication method.
- (Original) The method of claim 11, wherein the token is a stand-alone, portable device. 12.

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13. (Original) The method of claim 11, wherein the token is USB-based and is accessed by a browser.

- 14. (Withdrawn) The method of claim 10, wherein the token is software-based, and generates a code that comprises at least some of the data for the authentication method.
- 15. (Withdrawn) The method of claim 14, wherein the token comprises a browser plug-in.
- 16. (Original) The method of claim 4, wherein one authentication method employs a fixed complex code.
- 17. (Currently Amended) The method of claim 16, wherein the fixed complex code comprises a one-time password encrypted using a public key infrastructure.
- 18. (Original) The method of claim 4, wherein one authentication method is software-based.
- 19. (Original) The method of claim 4, wherein at least one user authentication method can be used across multiple web sites.
- 20. (Previously Presented) The method of claim 10, wherein the token is embedded in a cell phone.
- 21. (Currently Amended) A method of authenticating a user to one or more web sites <u>using</u> two or more factors associated with a user, comprising:

authenticating the user to a first web site of the one or more web sites <u>using one of the</u> <u>two or more factors</u>; and

once authenticated to the first web site, authenticating the user to a second web site <u>using</u> a second factor of the two or more factors;

wherein the user is granted access to content on the first web site only if authenticated to both the first and second web sites.

22. (Previously Presented) The method of claim 21, wherein authenticating to the first web site is performed with a password and authentication to the second web site is performed with a token.

- 23. (Previously Presented) The method of claim 21, wherein authenticating to the first web site is performed with a password and authentication to the second web site is performed with a one-time password.
- 24. (Canceled)
- 25. (Currently Amended) The method of claim 21, wherein authenticating to the first web site is performed with a first token and authentication to the second web site is performed with a second token.
- 26. (Currently Amended) The method of claim 21, wherein authenticating to the first web site is performed with a first token. and authentication to the second web site is performed with a one-time password.
- 27. (Currently Amended) The method of claim 21, wherein authenticating to the first web site is performed with a first token and authentication to the second web site is performed using two factor authentication based on a one-time password. and a smart card.
- 28. (Currently Amended) An A two-factor authentication system, comprising:
 one or more web sites implementing a first authentication method using one of two or
 more factors associated with a user;

an authentication web site connected to the one or more web sites for implementing a second authentication method <u>using another factor of the two or more factors</u>;

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wherein authentication information for the second authentication method is entered via a first web site of the one or more web sites and transferred from the first web site to the authentication web site; and

wherein a user is granted access to content on the one or more web sites only if authenticated to both the first web site and the authentication web site.

- (Previously Presented) The system of claim 28, wherein the first authentication method is 29. based on a password and the second authentication method is based on a token.
- (Currently Amended) The system of claim 28, wherein the first authentication method is 30. based on a password. and the second authentication method is based on a one-time password.
- (Currently Amended) The system of claim 28, wherein the first authentication method is 31. based on a password and the second authentication method uses two factor authentication is based on a one-time password. and a smart card.
- (Currently Amended) The system of claim 28, wherein the first authentication method is 32. based on a first token and the second authentication method is based on a second token.
- (Currently Amended) The system of claim 28, wherein the first authentication method is 33. based on a first token and the second authentication method is based on a one-time password.
- 34. (Canceled)